75. (Amended) A computer-implemented method for use in creating a digital model of a tooth in a patient's dentition, the method comprising:

(a)   [receiving] scanning the patient's dentition, or a physical model thereof, to produce a three-dimensional (3D) data set representing the patient's dentition;

(b)   applying a computer-implemented test to identify data elements that represent an interproximal margin between two teeth in the dentition;

(c)   applying another computer-implemented test to select data elements that lie on one side of the interproximal margin for inclusion in the digital model;

wherein applying the computer-implemented test is carried out by a computer without human intervention.

98. (Amended) A computer-implemented method for use in creating a digital model of a tooth in a patient's dentition, the method comprising:

(a)   [receiving] scanning the patient's dentition, or a physical model thereof, to produce a 3D dataset representing at least a portion of the patient's dentition, including at least a portion of a tooth and gum tissue surrounding the tooth;

(b)   applying a test to identify data elements lying on a gingival boundary that occurs where the tooth and the gum tissue meet; and

(c)   applying a test to the data elements lying on the boundary to identify other data elements representing portions of the tooth;

wherein applying the computer-implemented tests is carried out by a computer without human intervention.

121. (Amended) A computer program, tangibly stored on a [tangible storage] computer-readable medium, for use in creating a digital model of an individual component of a patient's dentition, the program including executable instructions that, when executed by a computer, cause the computer to:

(a)   [receiving] causing the patient's dentition, or a physical model thereof, to be scanned to produce a data set that forms a three-dimensional (3D) representation of the patient's dentition;

(b)   apply a test to the data set to identify data elements that represent portions of an individual component of the patient's dentition; and

(c)   create a digital model of the individual component based upon the identified data elements;

wherein the computer applies the test without human intervention.

147. (Amended) A computer program, <u>tangibly</u> stored on a [tangible storage] <u>computer-readable</u> medium, for use in creating a digital model of <u>a</u> tooth in a patient's dentition, the program including executable instructions that, when executed by a computer, cause the computer to:

(a)   [receiving] <u>cause the patient's dentition, or a physical model thereof, to be scanned to produce</u> a three-dimensional (3D) data set representing the patient's dentition;

(b)   apply a test to identify data elements that represent an interproximal margin between two teeth in the dentition;

(c)   apply another test to select data elements that lie on one side of the interproximal margin for inclusion in the digital model;

wherein the computer applies the test without human intervention.

170. (Amended) A computer program, <u>tangibly</u> stored on a [tangible storage] <u>computer-readable</u> medium, for use in creating a digital model of a tooth in a patient's dentition, the program including executable instructions that, when executed by a computer, cause the computer to:

(a)   [receiving] <u>cause the patient's dentition, or a physical model thereof, to be scanned to produce</u> a 3D data set representing at least a portion of the patient's dentition, including at least a portion of a tooth and gum tissue surrounding the tooth;

(b)   apply a test to identify data elements lying on a gingival boundary that occurs where the tooth and the gum tissue meet; and

(c)   apply a test to the data elements lying on the boundary to identify other data elements representing portions of the tooth;

wherein the computer applies the tests without human intervention.